

### **DETAILED ACTION**

The following is a Final Office action in response to communication received December 21, 2009. Claim 24 has been amended and claim 27 has been cancelled. Claims 24-26 are pending and addressed below.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Combs et al. (US 7,058,508 B2, hereinafter Combs) in view of Kenji Fujimoto, Shozo Azuma, Masaki Minami, Yasuhiko Miyazaki (JP 2001-195372 A, hereinafter Fujimoto) in further view of Nakanishi et al. (US 200310134634 A1, hereinafter Nakanishi), and in further view of Sameshima et al. (US 6,983,306 B1, hereinafter Sameshima).**

**As per claim 24,** Comb discloses a distributed system in which a plurality of devices are coupled to each other through a network, comprising:

a storage unit (col. 7, lines 14-16 database; Claim 27: machine readable storage);  
a processing unit (col. 3, lines 12-16 data processor); and  
a communication unit (col. 3, lines 3-12 communication network; col. 7, lines 26-32 communication device),  
wherein the storage unit is configured to store a service scenario and a context (col.

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3, lines 39-43 maintenance database, service provider database, equipment database, historical database).

Combs discloses the step for maintaining a maintenance database for tracking routine building system maintenance, which indicates a scheduled maintenance event (Abstract; col. 4, lines 44-56), but does not expressly disclose a service scenario. However, Fujimoto teaches preparing a service scenario [0012], and where service scenarios are retrieved from a service scenario repository with the utilization location of the user a key and the service scenario to be executed is selected from the retrieved service scenarios based on the user information and where the service scenario is executed and the user is provided with the service (Abstract). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the maintenance records of Combs to include a service scenario repository as taught by Fujimoto in order to provide the functions required to perform a specified service.

The Combs/Fujimoto combination discloses the claimed limitation, but do not expressly disclose wherein the service scenario describes functions necessary to provide a service and relationships between the functions, and wherein the context includes area information and selection conditions corresponding to the area information that serve as criteria for selecting one or more devices to be used in providing the service (Combs: col. 1, lines 19-29 building air conditioning systems, smoke detection systems, fire alarm systems, security systems, lighting systems and medical monitoring, each need to be

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monitored and must be repaired when problems arise and in addition to alarm notification; col. 6, line 67 - col. 7, line 2 control system can be used to monitor the status of each building system in the building and can detect anomalies; col. 4, lines 57-62 selecting a service provider for servicing the building system). However, Nakanishi teaches wherein a service control apparatus implements functions required for providing various types of services [0036], and wherein the scenario control layer selects a service scenario in accordance with the contents of the restored information [0059]. In addition Nakanishi teaches wherein the service scenario implementing means implements the service scenario by processing the object selected by the object selection means [0009], and wherein objects which are to be processed when implementing the service scenarios for the respective services, are retained in the service processing equipment [0026]. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the maintenance records of Combs and the service scenario of Fujimoto to include contents of information and functions required for providing services as taught by Nakanishi in order to effectively perform the requested service.

Combs further discloses wherein the processing unit comprises:

an extraction unit being configured to extract the devices necessary for performing the service based on the service scenario (col. 1, line 59 - col. 2, line 4 Bergeron teaches a control system that can access a database of field service engineers designated to provide services to a particular site and establishing communication; see also, col. 3, lines 12-38 the service provider can be selected

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based on whether the selected service provider is suitable to perform required maintenance and repair; see also Claim 27: computer program having a plurality of code sections executable by a machine to perform the steps of responsive to said detection, automatically selecting a service provider suitable for servicing said building system);

a detection unit being configured to detect available devices located in an area wherein the service can be provided to a requester, each available device having one or more of the functions described as necessary to provide the service according to the service scenario (col. 6, lines 19-25 an automated building service broker can detect in a building system a need for service, either in response to a routine event or error condition; see also Claim 27: computer program having a plurality of code sections executable by a machine to perform the steps of electronically detecting a need for service in a building system in a building site);

a creation unit being configured to create correspondence information specifying a linkage between the detected devices, the correspondence information comprising function information, device information, process information, and data destination information (col. 9, lines 58-64 and Fig. 3, item S18: create work record in historical dB); and

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a service execution unit being configured to execute the service for the requester of the service by linking the detected devices based on the correspondence information, wherein the service execution unit allocates a plurality of processes on a single device to different users and executes the service for the different users, the service execution unit being further configured to allocate a data destination for the service based on the correspondence information when the service execution unit transmits data (Claim 27: computer program having a plurality of code sections executable by a machine to perform the steps of providing an electronic notification of said service need over a communication link to said selected service provider and monitoring said communication link for an electronic response to said electronic notification querying),

The Combs/Fujimoto/Nakanishi combination discloses the claimed limitation, but does not expressly disclose wherein, in response to a change in the area information of the context while the service is executed, the detection unit redetects available devices, and the creation unit rewrites correspondence information on linkage between the redetected devices (Comb: col. 4, lines 23-28 monitoring the communications link for an electronic response to the electronic notification; see also col. 4, lines 41-43 step of detecting a need for service in a building system can include sensing an error condition in the building system; see also col. 5, lines 54-67 responding to an electronic request with an electronic response and transmitting additional geographical positioning data to the automated building service broker after the step of responding; see

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also col. 6, line 54 - col. 7, line 5 the control system can detect anomalies; see also col. 10, lines 52-55 maintenance database can be updated). However, Sameshima teaches a processing program of devices to deal with changes and updates (col. 1, lines 6-22 a distributed system which is employed in the environment where the state of the surroundings of the control machines or the objects is continuously changed due to transfer of a control machine or and object, or a change in a control target; see also, col. 3, lines 16-24 an inter-device cooperative control system and an apparatus therefore in which each device can change its operational conditions; see also, col. 3, lines 35-46 to form a link according to changes in the environment and conditions; see also, col. 12, lines 8-67 when a change occurs in its device conditions, the device sends a conditional change notice, and the device receives this notice, see Fig. 31 and associated text).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the services of Combs/Fujimoto/Nakanishi to include a processing program as taught by Sameshima in order to provide a process that can react to service changes conditions and since system conditions change with time according to the configuration and operational conditions of devices constituting the system.

Comb further disclose wherein the extraction unit extracts the devices by querying a server having a database that stores attribute information of the devices, and selects the devices necessary for performing the service by exchanging information between devices having the functions described in the service scenario (col. 1, line 59 - col. 2, line 4 Bergeron teaches a control system that can access a database of field service engineers

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designated to provide services to a particular site and establishing communication; see also, col. 3, lines 12-38 the service provider can be selected based on whether the selected service provider is suitable to perform required maintenance and repair; see also col. 6, lines 25-30 building service broker can retrieve a list of service providers suitable for servicing the specified building system; see also col. 8, lines 24-30 server interactions).

Comb further discloses wherein the creation unit creates the correspondence information for each user requesting a service (col. 6, lines 60-63 upon detecting an anomaly, the control system can request from the automated building service broker corresponding maintenance and repair; see also col. 9, lines 38-63 following the transmission of the work request a work record can be created in a historical database in which historical maintenance records can be tracked) and allocates functions from a single device to different users based on the correspondence information, and releases the functions allocated to each user when the service provided to said each user is completed (col. 2 lines 59-67 control system can access a database of field service engineers designated to provide services to particular remote sites in response to alarm signals received from those sites; see also col. 7, lines 48-53 the service provider database can be consulted to identify a set of approved service providers; see also, col. 9, lines 14-18 once a set of suitable service providers has been identified the service providers in the set can be queried to identify a current position for each service provider).

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**Examiner notes:** A recitation directed to the manner in which a claimed apparatus is *intended to be used* does not distinguish the claimed apparatus from the prior art- if the prior art has the capability to so perform. See MPEP 2114 and *Ex parte Masham*, 2 USPQ2d 1647 (1987). **Please note this also applies to claims 25-26.**

**As per claim 25**, Comb further discloses wherein the detection unit detects the available devices located in the area wherein the service can be provided by acquiring information on the devices extracted by the extraction unit (col. 3, lines 12-38 the automated building service broker can include a Global Positioning System (GPS) data processor for processing the GPS data associated with the communicatively linked service providers, the GPS data corresponding to a geographic position col. 4, lines 41-56 the step of detecting a need for service in a building system can include sensing an error condition).

**As per claim 26**, The Combs/Fujimoto/Nakanishi combination discloses all the elements of the claimed limitation, but does not expressly disclose wherein the detection unit redetects the devices in response to a change in the situation of the devices in the area wherein the service can be provided. However, Sameshima teaches a processing program of devices to deal with changes and updates (col. 1, lines 6-22 a distributed system which is employed in the environment where the state of the surroundings of the control machines or the objects is continuously changed due to transfer of a control machine or and object, or a change in a control target; see also, col. 3, lines 16-24 an inter-device cooperative control system and an apparatus therefore in which each device can change its operational conditions; see also, col. 3, lines 35-46 to form a link according



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to changes in the environment and conditions; see also, col. 12, lines 8-67 when a change occurs in its device conditions, the device sends a conditional change notice, and the device receives this notice, see Fig. 3 1 and associated text). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the services of Combs/Fujimoto/Nakanishi to include a processing program as taught by Sameshima in order to provide a process that can react to service changes conditions and since system conditions change with time according to the configuration and operational conditions of devices constituting the system.

**Please note:**

Examiner has pointed out particular references contained in the prior arts of record in the body of this action for the convenience of the applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant, in preparing the response, to consider fully the entire references as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior arts or disclosed by the examiner.

A recitation of the *intended use* of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. See *e.g. In re Collier*, 158 USPQ 266, 267 (CCPA 1968)(where the court interpreted the claimed phrase “a connector member for engaging shield means” and held

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that the shield means was not a positive element of the claim since “[t]here is no positive inclusion of ‘shield means’ in what is apparently intended to be a claim to structure consisting of a combination of elements.”

Applicant(s) are reminded that optional or conditional elements do not narrow the claims because they can always be omitted. See *e.g.* MPEP §2106 II C: “Language that suggest or makes optional but does not require steps to be performed or does not limit a claim to a particular structure does not limit the scope of a claim or claim limitation. [Emphasis in original.]”; and *In re Johnston*, 435 F.3d 1381, 77 USPQ2d 1788, 1790 (Fed. Cir. 2006) “As a matter of linguistic precision, optional elements do not narrow the claim because they can always be omitted.” *In re Johnston*, 435 F.3d 1381, 77 USPQ2d 1788, 1790 (Fed. Cir. 2006)(where the Federal Circuit affirmed the Board’s claim construction of “further including that said wall may be smooth, corrugated, or profiled with increased dimensional proportions as pipe size is increased” since “this additional content did not narrow the scope of the claim because these limitations are stated in the permissive form ‘may.’”).

### ***Response to Arguments***

Applicant's arguments filed on 12/21/2009 have been fully considered but they are not persuasive. In the remarks Applicant argues:

#### **Claim 24**

(1) The storage unit stores a service scenario that "describes functions necessary to provide a service and relationships between the functions." The processing unit includes

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an extraction unit "configured to extract the devices necessary for performing the service based on the service scenario" and a creation unit that "allocates functions from a single device to different users based on the correspondence information, and releases the functions allocated to each user when the service provided to said each user is completed." The processing unit also includes a service execution unit that "allocates a plurality of processes on a single device to different users and executes the service for the different users." The cited references, alone or in combination, do not disclose or fairly suggest at least these elements. Since the Office Action acknowledges that Combs/Fujimoto fails to disclose a service scenario that includes functions and relationships, and since Nakanishi does not cure this deficiency, Applicants respectfully submit that the cited references (alone or in combination) fail to disclose a service scenario as claimed. It is respectfully submitted that the cited references also fail to disclose a processing unit with the claimed creation and service execution units. In particular, the cited references do not disclose "wherein the creation unit creates the correspondence information for each user requesting a service and allocates functions from a single device to different users based on the correspondence information" or that the service execution unit "allocates a plurality of processes on a single device to different users and executes the service for the different users." Combs is analogous to an electronic rolodex which identifies and summons a worker who is best suited to perform a particular repair. According to Combs, it is the worker/engineer, not the system, who provides the requested service. Notwithstanding fundamental differences between Combs and the claimed invention, the Office Action equates the claimed "devices" with the

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engineers who respond to Combs' service calls. See, Office Action at page 5 (citing Combs' reference to Bergeron and the computer program of claim 27 which has code for providing "electronic notification" to such workers). However, Applicants respectfully submit that the human repair workers do not satisfy the requirements of the claimed invention. Specifically, the human workers are not "processes" on a "device" which can be "allocated" by a processing unit to "execute" a service for different users. Accordingly, Applicants respectfully submit that Combs' system for providing electronic notification to field engineers in no way discloses the claimed processing unit with its constituent extraction, creation, and service execution units. Since none of the cited references disclose a service scenario as claimed, they do not cure Combs' deficiencies with respect to the processing unit (which acts in relation to the claimed service scenarios). As such, whether taken alone or in combination, it is respectfully submitted that the cited references fail to disclose or suggest at least service scenarios and a processing unit having constituent parts which operate upon the service scenarios as these elements are claimed by Applicants.

In response to argument (1) the Examiner respectfully disagrees. The Combs/Fujimoto/Nakanishi combination does in fact disclose the argued limitation: "describes functions necessary to provide a service and relationships between the functions." For clarification purposes the Examiner points to the prior art citations noted in the non-final office action submitted on 8-19-2009. In at least the cited paragraphs of Nakanishi, cited in the previous office action, Nakanishi teaches a service scenario implementing means the implements the service scenario by processing the object

selected by the object selection means [0009, 13]. Furthermore, Nakanishi teaches the process of executing objects when implementing the service scenarios for the respective services. The selected service is executed by the service processing equipment to implement the selected service scenario [0020-26]. The service scenario is produced by the service management equipment in association with each service to be provided [0027]. Furthermore, Nakanishi teaches wherein the service management equipment implements a variety of service processing functions [0038, 45-46]. Therefore, in at least these paragraphs of Nakanishi the process wherein a service scenario describes functions necessary to provide a service and relationship between the functions is taught and would have been obvious to one of ordinary skill in the art at the time of the invention in order to include one or more interrelated functions necessary to perform a service scenario in order to execute the service scenarios. With respect the system claim limitation reciting "wherein the processing unit includes an extraction unit configured to extract the devices necessary for performing the service based on the service scenario and a creation unit that allocates functions from a single device to different users based on the correspondence information, and releases the functions allocated to each user when the service provided to said each user is completed" and "a service execution unit that allocates a plurality of processes on a single device to different users and executes the service for the different users," Combs discloses the note claimed limitation. Column 2, line 66 to column 3, line 11 of Combs discloses the method and system for automated building service brokering that includes the step for automatically monitoring multiple devices in multiple locations, locating and alerting service providers to repair or maintenance needs (services). Service

providers are notified/alerted (extracted) via an electronic message to the selected service provider through a pager-type communication network (col. 4, lines 57- col. 5, lines 25).

The Examiner agrees with Applicant's statement wherein service providers do not constitute as being a "device." However, the Examiner's interpretation is not intended to replace a "device" with service providers, instead the Examiner interprets the plurality of electronic devices, associated with each service provider, as being the means for extracting or notifying said service providers for performing the requested service.

Furthermore, Combs discloses wherein each service provider includes a global position system receiver and a wireless communications device from providing data communications between the GPS receiver and the automated building services broker (col. 7, lines 26-30). Lastly, Combs further discloses the progress of tracking the repair or maintenance, and maintaining a history log of the relevant information relating to each device and each repair or maintenance request. Therefore, the automatic system disclosed by Combs, extracts the service providers via the associated electronic interfaces in order to execute the one or more functions necessary to perform the service scenario.

### **Claims 25-26**

(2) Claims 25-26 depend from claim 24. Each dependent claim incorporates all of the limitations of its respective base claim. Claims 25-26 are therefore believed allowable over the cited references for at least the reason that they depend from an allowable base claim as well as deriving patentability from their further limitation thereof.

Reconsideration and allowance of all pending claims is respectfully requested.

In response to argument (2) the Examiner respectfully disagrees based on the same reasoning noted in argument (1).

### **Conclusion**

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BOB CHUMPITAZ whose telephone number is (571)270-5494. The examiner can normally be reached on M-TR: 7:30 AM - 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JOHN WEISS can be reached on (571) 272-6812. The fax phone number for the organization where this application or proceeding is assigned is 571-270-6494

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B. C.  
Examiner, Art Unit 3629

/JOHN G. WEISS/  
Supervisory Patent Examiner, Art Unit 3629